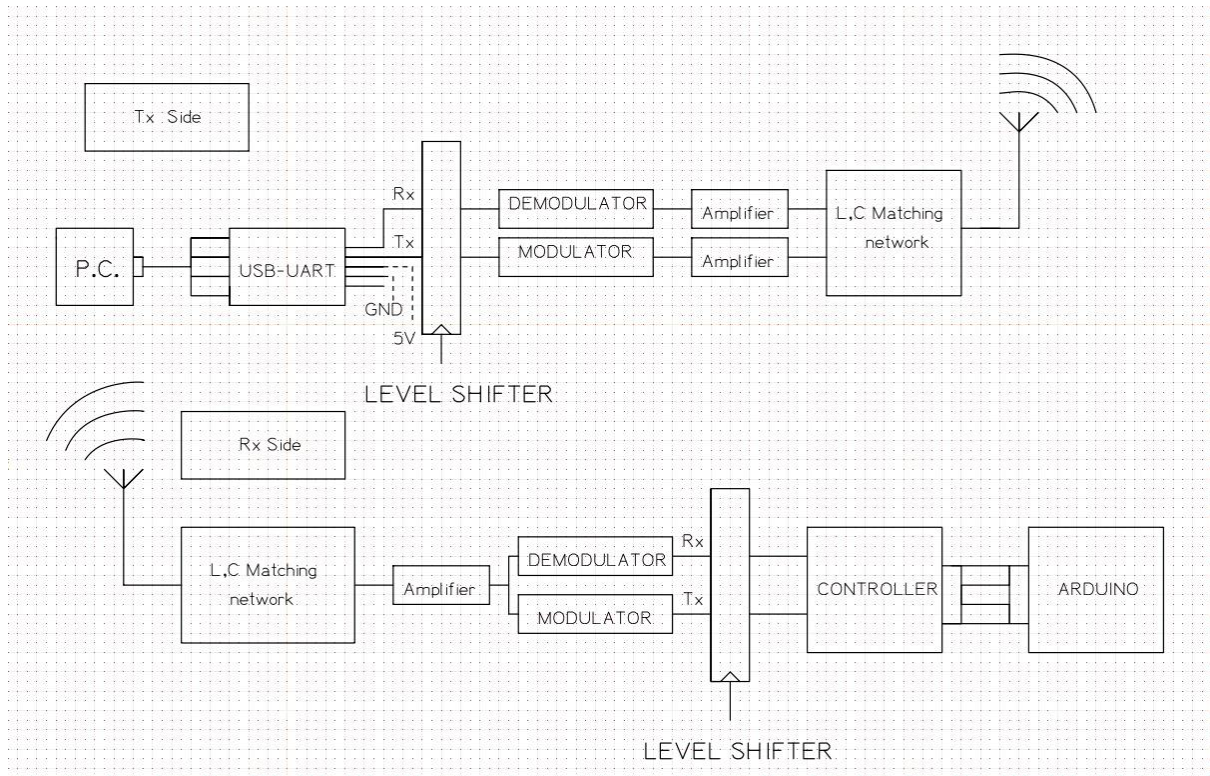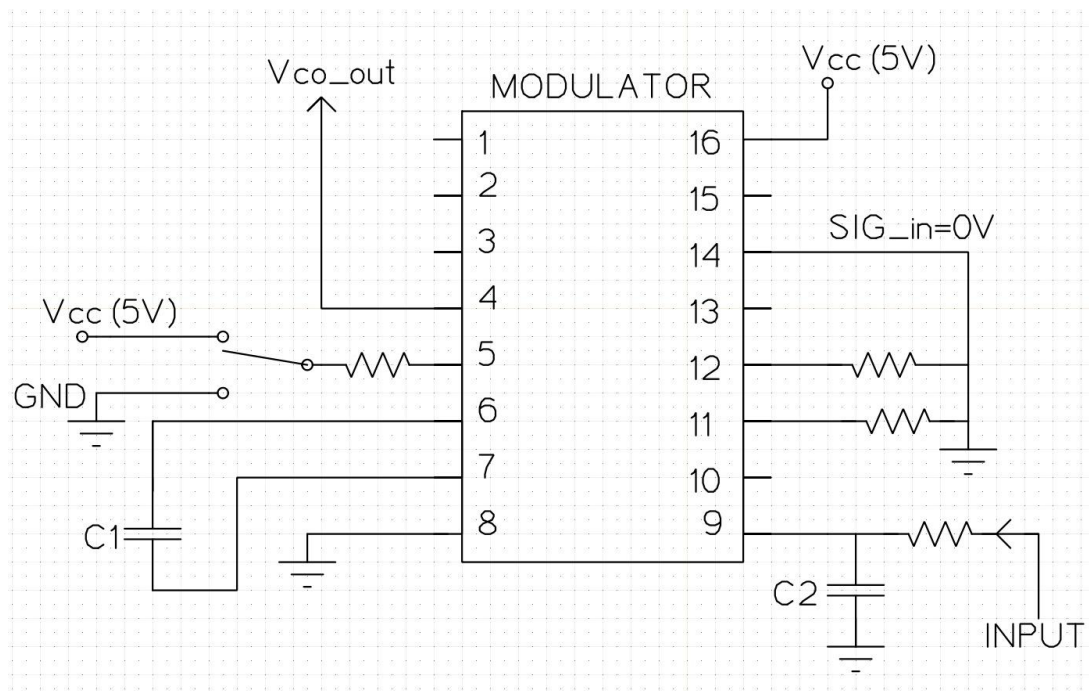# CIRCUIT SCHEMATICS

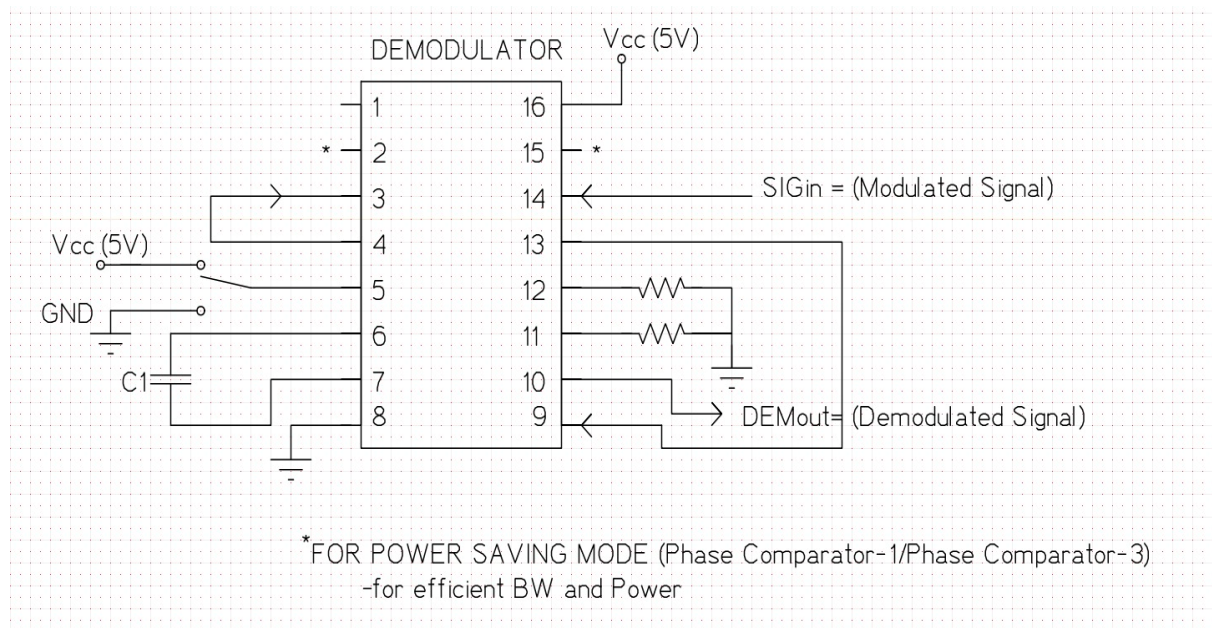## BLOCK DIAGRAM
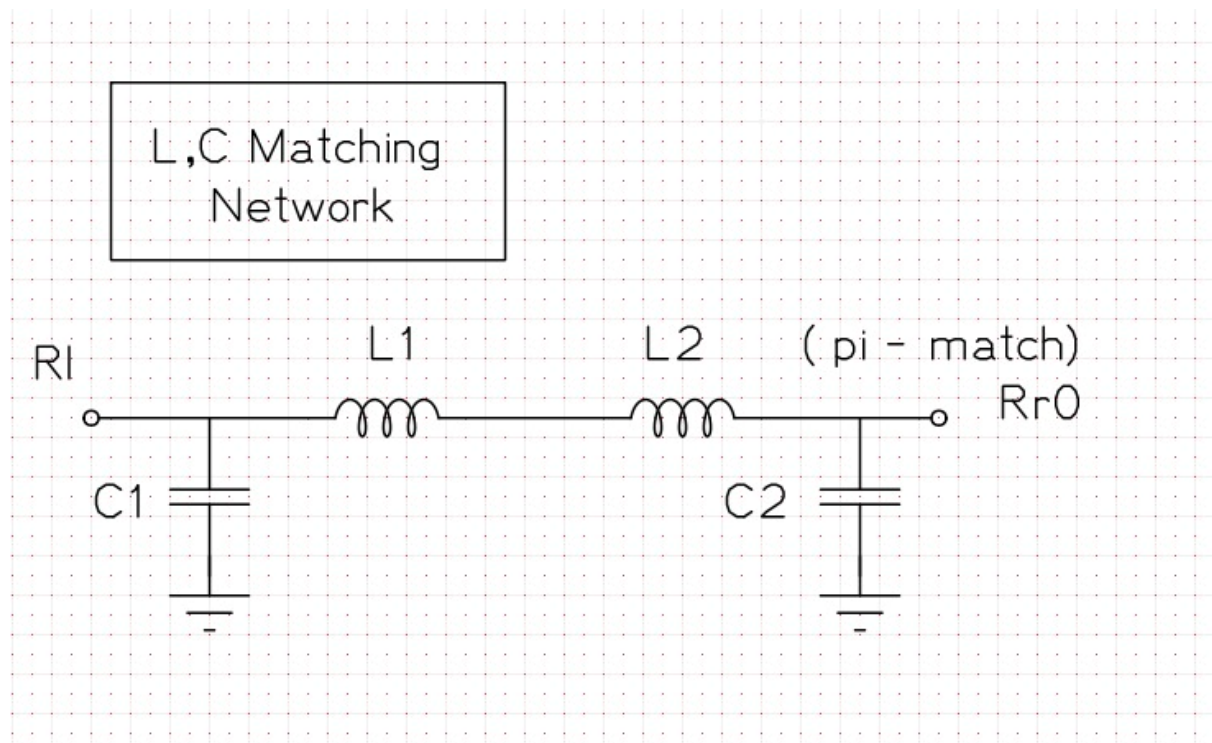

MODULATOR CIRCUIT (PLL-IC)
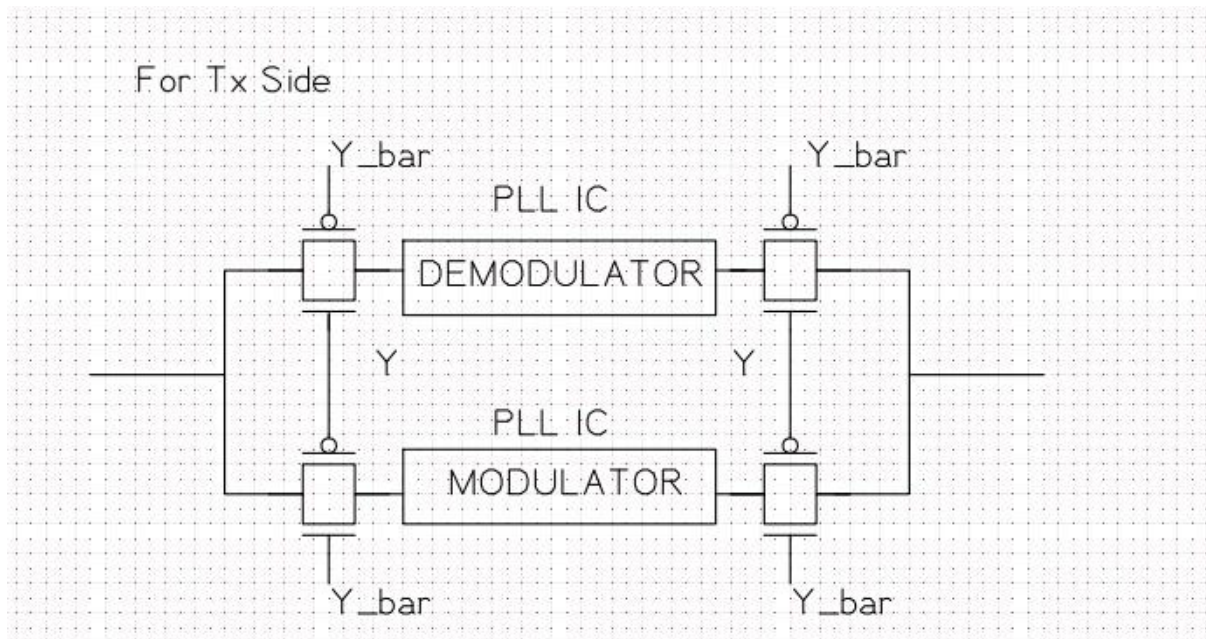
DEMODULATOR CIRCUIT (PLL-IC)

DEMODULATOR

Vcc (5V)

1	16
* 2	15 *
3	14	SIGin = (Modulated Signal)
4	13
5	12
6	11
7	10
8	9	DEMout= (Demodulated Signal)

Vcc (5V)

GND

C1

*FOR POWER SAVING MODE (Phase Comparator-1/Phase Comparator-3)
-for efficient BW and Power

LC MATCHING NETWORK

L,C Matching
Network

RI   L1   L2   (pi - match)
                                        Rr0
C1   C2

MODE SWITCHING LOGIC (Tx)

For Tx Side

Y_bar   Y_bar

PLL IC

DEMODULATOR

Y   Y

PLL IC

MODULATOR

Y_bar   Y_bar

MODE SWITCHING LOGIC (Rx)

For Rx Side

Y   Y

PLL IC

DEMODULATOR

Y_bar   Y_bar

PLL IC

MODULATOR

Y   Y

TIMER LOGIC

Ctrl ──────▶ ┌─────────────┐
             │   TIMER   │ ──────▶ T   Ctrl=1 (Demodulation in Rx side)
Time ────────┤   │
             └─────────────┘   (=1 only when Time completed)
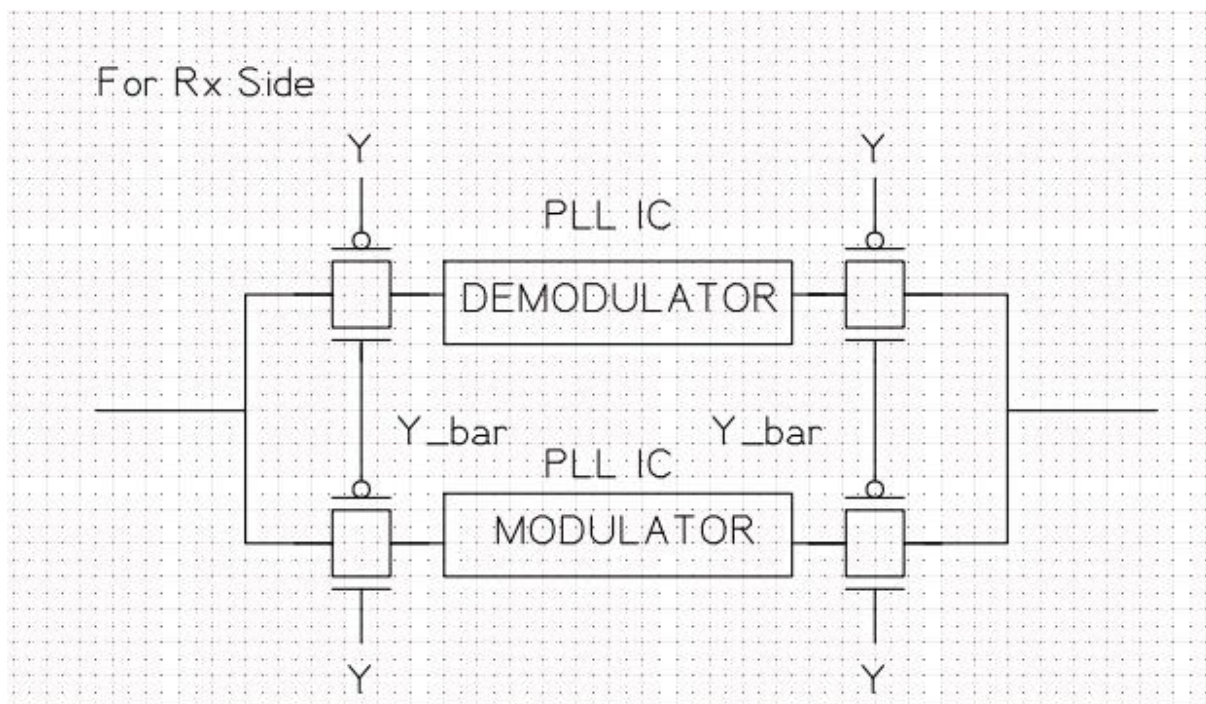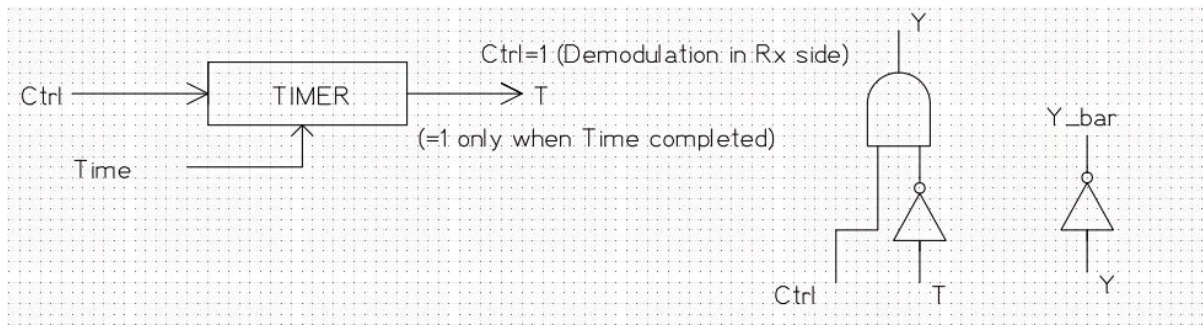
SI4464 CIRCUIT CONNECTION

OVERALL CIRCUIT DESIGN